Funding Application – Small Projects (Under $10K)

STUDENT SUSTAINABILITY COMMITTEE

Please submit this completed application and any relevant supporting documentation by the deadline listed on the SSC website to Sustainability-Committee@Illinois.edu. The Working Group Chairs will be in contact with you regarding any questions about the application. If you have any questions about the application process, please contact the Student Sustainability Committee at http://sustainability-committee@illinois.edu.

General Information

Project Name: Zero Waste Woodshop – Thermal Power

Total Amount Requested from SSC: $7,570

Project Topic Areas: Food & Waste, And Energy,

Contact Information

Applicant Name: Mark S Taylor
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Project Team

Name	*Department/Organization*	*Email*
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(If Applicable)
Woodshop Facilities Manager Name: Lowell Miller
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Project Information

Provide a brief background of the project, its goals, and the desired outcomes.

The goal of this project is to utilize the resources that will be produced by the "Zero Waste Woodshop Project", that is also being submitted to the SSC this cycle. A significant amount of wood material flows through the School of Architecture's woodshop. This proposal seeks to find ways of diverting the waste stream that follows behind the creation of architectural study models and furniture and put that material to other uses: Primarily as a bio fuel and additions to compost. Currently some scrap material is captured, however this project will help identify exactly what material waste is produced, and what diverse uses it could be put to, as opposed to being sent to landfill. The "Zero Waste Woodshop " project will acquire the required tools to separate synthetic (plastics, EPS, polyurethane foam, etc.) from natural (wood & wood products) materials. This proposal will focus on methods of waste material separation, quantification, and value as a biofuel or compost additive.

How will this project improve sustainability at UIUC?

Currently, all sawdust collected at the architecture woodshop is considered waste material. A large amount of sawdust is discarded every week from the shop. This proposal will investigate alternative uses for sawdust in conjunction with composting. It has already been established that material sized 0.5" – 1.5" could be used in existing biofuel furnaces on campus and additional opportunities to use small woodstoves for parts of the paper making process and thermal comfort have been identified.

Where will the project be located? Do you need special permissions to enact the project at this site? If so, please explain and attach a letter of support to your application.

The sorting of material will take place at the architecture woodshop in the art annex building on campus. From the point of collection material will be taken to a number of different facilities on campus such as the Dept. of Crop Sciences Energy Farm and the Research Park.

Other than the project team, who will have a stake in the project? Please list other individuals, groups, or departments indirectly or directly affiliated to this project. This includes any funding entities (immediate, future, ongoing, etc.) and any entities that will be benefiting from this project.

This application is submitted as a 2-stage application. By the second stage we hope to have MOU's with all the entities we would like to work with. Those currently being considered are Tim Mies and the bio-furnace at the Dept of Crop Sciences Energy Farm, Eric Benson and Fresh Press at the Research Park, and the team working with "CornCrete" to provide thermal heating, hot water and power inside a small Field Station on the South Farms.

Please indicate how this project will involve or impact students. What role will students play in the project?

The architecture shop is utilized by all faculty and staff of the architecture, landscape architecture and urban planning programs. Through advertisement of the zero-waste initiative, students will be given the opportunity to donate materials for recycling rather than disposing of their unwanted material. Our hope is that all those using the shop will take a few extra steps in the course of their work in the shop to process their waste material so it is in a state that can be used by others in a useful way.

Have you applied for funding with SSC previously? If so, for what project?

Currently I have two projects funded by the SSC: The relocation of the Gable Home (that should conclude by the summer this year. And “CornCrete” which runs until Summer 2019.

Scope, Schedule, and Budget verification

What is the plan for project implementation? Describe the key steps of the project including the start date, target completion date, target date for submitting a final report, and any significant tasks or milestones in the table below. Please be as detailed as possible.

Below is a draft of the key steps that need to be taken.
By stage 2 of this application a timeline will be established.

Step 1: Quantify how much material typically makes its way to landfill from the shop and what does it look like. The material will be photographed, and estimated for volume and weight.

Step 2: New equipment installed and storage established to ensure waste streams do not get contaminated.

Step 3: Weekly processing and measuring of waste material to take place.

Step 4: Distribution of waste material to different locations for secondary use.

Step 5: Monitoring and measuring of material in secondary use.

Step 6: Final reports drafted and submitted to interested parties.

List all budget items for which funding is being requested. Include cost and total amount for each item requested. Please be as detailed as possible.

1. Containers and signage for material storage and transport, 169qt Remington store-it-all tote storage bin in black $120 (quantity 8).
2. Funds for transportation to various locations around campus (numerous trips will be made over the semester) $200
3. Wood burning stove for use at Fresh Press to boil plant material $400.
6. Wood burning stove with water heater for use in the “CornCrete” Field Station. $800
7. Wood burning stove with water heater and electrical power generation alternative for Field Station or at the Crop Science Energy Farm $4000
8. Student Labor costs: 3hrs a week for one student to coordinate sorting and distribution of . As the shop operates all year round 50 weeks x 3hrs @ $15/hr = @ $2250

1	Storage Bins and Signage	$120
2	Transportation costs	$200
3	Wood Burning Stove	$400
4	Wood Burning Stove with Water Heater	$800
5	Wood Burning Stove with Power Generation	$4,000
6	Student Labor	$2,250
	Total	$7,770

If the project is implemented, will there be any ongoing funding required? What is the strategy for supporting the project in order to cover replacement, operation, or renewal costs? (Note: SSC provides funding on a case by case basis and should not be considered as an ongoing source of funding)

Our expectation is that within a year the woodshop will have established protocols and processes that can be built into regular shop cleaning operations.

Please include any other sources of funding that have been obtained or applied for, and please attach any relevant letters of support.

No other sources of funding to date.

What is the plan for publicizing the project on campus? In addition to SSC, where will information about this project get reported?

Advertisement throughout the architecture, urban planning, and landscape communities on campus, the Illinois School of Architecture Website, posting informative documents and posters in the Architecture Woodshop and informing students while they're in the shop. Once the project has run for a year the team will prepare a report and presentation that can be given to other shop managers on campus